

Sheet A -

Calculations with the mol

reminders: mass must be in grams

do not forget to crisscross when you  
write a formula down

$E = 0.325 \text{ g}$   $M = 180.17 \text{ g/mol}$   $n = 0.0018 \text{ mol}$   
 $n = \frac{0.325 \text{ g}}{180.17}$   $1.8 \times 10^{-3} \text{ mol}$

E 0.77 mol  $(\text{NH}_4)_2\text{SO}_4$  101.77g

132.17g/mol

2N  $2 \times 14.01$

8H  $8 \times 1.01$

1S  $1 \times 32.07$

4O  $4 \times 16.00$

n

M  
NaOH

$$n = \frac{m}{M}$$

B 0.224  
mol

40.00g/mol

8.96g

C  $\frac{57.3 \text{ mmol}}{10^3 \text{ or } 1000}$   
0.0573 mol

H<sub>2</sub>O

18.02g/mol

$$0.224 \text{ mol} = m$$

40.00g/mol

1.03g

D 9.44 kmol  
 $9.44 \times 10^3$   
9440 mol

KMnO<sub>4</sub>

158.04g/mol

$$0.0573 \text{ mol} = m$$

18.02g/mol

1491897.6 g

$1.49 \times 10^6 \text{ g}$

E 0.77 mol

(NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>

101.7g

2N  $2 \times 14.01 = 28.02$

8H  $8 \times 1.01 = 8.08$

1S  $1 \times 32.07 = 32.07$

4O  $4 \times 16.00 = 64.00$

132.17g/mol

$n = m$

$$0.77 \text{ mol} = m$$

132.17g/mol